What a Great Show! They A

by Capt. Chris Andersen, USNR

Airshow on dependents' day cruise. Showing off a small slice of what we have trained so long to do. This would be the second time our air wing would put on the show that I had written and sweated over, and that I would once again direct from the Boss's chair.

The first demonstration—for a bunch of visiting foreign military types a few months before—had gone off without any problems, so we believed the second time would be even better (though OPTAR constraints meant no rehearsal this time). The aircraft would be coming off the beach, as we would be in port at Norfolk between at-sea periods during workups. Ten days before pulling in, we briefed the show, stipulating the attendees had to be the players, no substitutions.

The show's time line allowed the aircraft demonstrations to push from four holding points, arriving at the show's center at various intervals. Push times and inbound speeds were organized much like a Case III recovery, giving enough time for the preceding aircraft to vacate the show center and for any shrapnel from the live ordnance demonstrations to clear.

Glitch number 1: It was June and the mid-Atlantic haze was a factor. Visibility was down to no more than 3-to-4 miles and that was stretching it. The captain and I (neither CAG or DCAG was aboard that day) talked it over on the bridge 30 minutes before show time. We were sure we could fly the demonstration safely because the aircrews were very experienced.

All the aircraft checked in at their stations and received the time hack to synchronize the show. Five minutes before the show started, an SH-3 came out of starboard delta to drop a line of smokes one mile off the port side of the ship. Halfway through that event, a Tomcat pushed to make a supersonic pass to start us off. The crew reported that the visibility was so poor they couldn't see the ship.

Glitch number 2: The SH-3 crew had trouble getting the smokes out of the aircraft. They had five minutes to complete the drop and clear center stage before the Tomcat arrived, and they weren't going to make it.

Despite a couple of calls from me, the SH-3 lingered on the smoke line, trying in vain to dispense every last canister. No problem, I thought, just keep the helo out at a mile and let the Tomcat complete the pass between the ship and the helo. Meanwhile, the act following the Tomcat had just called to tell me they were pushing on time. An A-6 was inbound with a full load of Mk-82 Snakeyes to be delivered at the top of a pop-up starting from the starboard side of the ship, with the weapons hitting beyond the smoke line on the port side.

The Tomcat used his TACAN needle to get close enough to finally pick up the ship inside 3 miles. The pass and the boom that quickly followed were impressive, despite the haze and the fact that he never saw the SH-3.

Glitch number 2 continued. The SH-3 crew was still trying to dispense the last of their smokes as I became increasingly concerned.

My next call to the helo was, "Put the ship on your nose and get to starboard D now!"

In the next few moments, the SH-3 turned toward the ship, just as the A-6 called, "In the pop." Big problem! The next few seconds were surreal. The helo had barely covered half the distance between the smoke line and the ship. The Intruder pickled his load of

Almost Took Out That Helo!

Snakeyes, and the bombs headed for the water. The Mk-82s began exploding, and I held my breath at the sight of the SH-3 silhouetted against the explosions, a half-mile past the aircraft.

The shock waves of each detonating bomb pounded the tower's glass. The explosions finally ceased, and the helo was still in the air. For the blissfully ignorant family members and friends watching, it appeared as though we'd planned that way. About 15 seconds later, the captain blew into the tower, looked at me and the show narrator, and asked, "Wasn't that a little close?"

I agreed, saying it had certainly gotten my attention. He quickly exited, and, in retrospect, I'd have done the same thing. We completed the show without further incident, and all ended well that day—or so I thought.

Two days later, it became clear just how close we had come to tragedy. A piece of shrapnel had nicked the root end of one of the H-3's blades. The nick had gone unnoticed through the SH-3's next two flights and was finally discovered on a turnaround inspection en route to NAS Mayport. The entire blade assembly had to be replaced. One-quarter inch in almost any direction and the results would

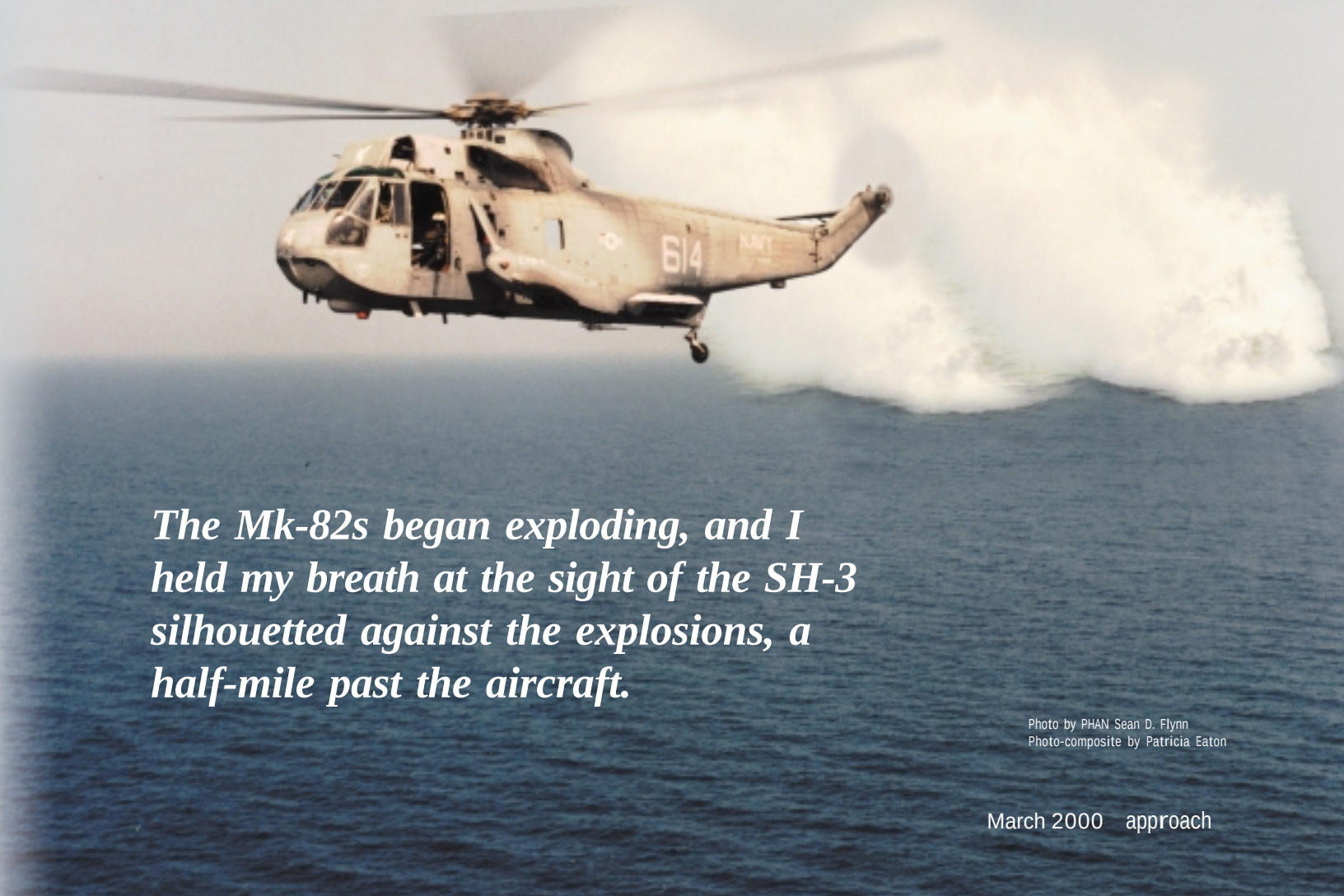

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Photo by PHAN Sean D. Flynn
Photo-composite by Patricia Eaton

have been catastrophic. After 11 years, the thought of what might have been still makes me queasy.

A good friend of mine, who was the CAG ops officer, was tasked with the investigation. It wasn't too hard to find the causes of the mishap. The deafening silence of my voice on the tower frequency that could have prevented the release of the Intruder's load of Snakeyes still stands at the top of my list of failures, the last link in the chain of events before any mishap. There were contributing causes as well, and I'm sure you can name a couple. The only one that is not evident and was not known until the completion of the investigation is that the helo crew who briefed for the show was not the crew who flew the hop.

This little tale of mistakes is worth reviewing from an ORM perspective. I think of managing risk as "minimizing untimely failure." Most of our responses to untimely failure come after the fact.

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Before and during the show, people in the chain of command made decisions that set the stage for what happened. Let's explore them, not to assign blame, but to understand that as any plan unfolds, each phase can introduce elements that help lead to failure. Managing those elements while keeping sight of the finished product is the goal. There may be times when the goal is not worth the risk.

Why did we have only a show director and a narrator in the tower—one with his head down reading a script, and the other tasked with both running the show and keeping an eye out for hazards? This shortcoming got by everybody in the planning process, and there were a lot of senior officers who were part of the planning and approval process.

An unbriefed crew participating in the show was just one of the critical failures. The helo crew would have followed the script if they had been at the brief.

Not rehearsing because of OPTAR constraints is hard to evaluate. If everyone had complied with the airshow instruction, the mishap wouldn't have happened. But the challenge of demonstrating various aspects of power projection at low altitude over water with limited visibility required an increased level of performance from all participants. Did anyone suggest drastically scaling back or even canceling demonstrations, given the lack of money for rehearsal?

There was no positive clearance before each weapons-release demonstration to ensure the impact area was clear. The clearance for a green range was passed at the beginning of the show. In retrospect, every act that was to release anything should have obtained a unique clearance. This is another hazard that got by everyone in the planning process.

Should the captain have stopped the show? Another tough call. He'd been concerned enough to come up to the tower. He was familiar with the show. From a risk-management perspective, where the importance of preserving and protecting assets had just been compromised, would pulling the plug and sending the aircraft back to the beach have been a prudent decision?

Repeating mistakes seems to be characteristic of all human endeavors. ORM is about learning to examine critically the operational planning and execution processes, remembering that despite our best intentions, the law of unintended consequences will always apply at some point.

Capt. Andersen flew F-14s and is now a member of the Naval Safety Center's Naval Reserve Unit 0186.